Claims

We claim:

5   1.   A computer-implemented method for creating a test executive application
to perform a test executive function, the method comprising:

including a GUI element in the test executive application in response to user
input;

including a control in the test executive application in response to user input,
10   wherein the control includes pre-existing first functionality; and

configuring a binding between the GUI element and the control;

wherein the GUI element is operable to receive user input during execution of the
test executive application;

wherein said configuring the binding between the GUI element and the control
15   enables the control to automatically perform the first functionality in response to the user
input received to the GUI element.

2.   The method of claim 1,

wherein said configuring the binding between the GUI element and the control
20   enables a user to configure the test executive application to perform the first functionality
in response to user input received to the GUI element without requiring the user to
program the test executive application to perform the first functionality.

3.   The method of claim 1,

25   wherein said configuring the binding between the GUI element and the control
enables a user to configure the test executive application to perform the first functionality
in response to user input received to the GUI element without requiring the user to
program the test executive application to respond to user input received to the GUI
element.

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4.   The method of claim 1,

wherein said configuring the binding between the GUI element and the control enables a user to configure the test executive application to perform the first functionality in response to user input received to the GUI element without requiring the user to create program code to implement the first functionality.

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5.   The method of claim 1,

wherein the first functionality of the control includes test executive functionality;

wherein said configuring the binding between the GUI element and the control enables the control to automatically perform the test executive functionality in response

10   to the user input received to the GUI element.

6.   The method of claim 5,

wherein the test executive functionality comprises functionality for one or more of managing execution of a test executive sequence and/or displaying information

15   regarding execution of the test executive sequence;

wherein said configuring the binding between the GUI element and the control enables the control to automatically manage execution of the test executive sequence and/or display information regarding execution of the test executive sequence in response to the user input received to the GUI element.

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7.   The method of claim 1,

wherein the test executive application is operable to execute a test executive sequence to perform one or more tests on one or more units under test (UUTs).

25   8.   The method of claim 1,

wherein the test executive application comprises a run-time operator interface application for a test executive sequence.

9.   The method of claim 8,

30   wherein the test executive sequence is associated with a test executive environment;

wherein the control is operable to call the test executive environment during execution of the run-time operator interface application to perform one or more of managing execution of the test executive sequence and/or displaying information regarding execution of the test executive sequence.

10.   The method of claim 1,

wherein the first functionality of the control includes functionality for selecting a test executive sequence;

wherein said configuring the binding between the GUI element and the control enables the control to automatically perform the functionality for selecting a test executive sequence in response to the user input received to the GUI element.

11.   The method of claim 10,

wherein the first functionality of the control also includes functionality for automatically displaying test executive steps of the test executive sequence in response to said selecting the test executive sequence.

12.   The method of claim 1,

wherein the first functionality of the control includes functionality for invoking execution of a test executive sequence;

wherein said configuring the binding between the GUI element and the control enables the control to automatically invoke a test executive sequence in response to the user input received to the GUI element.

13.   The method of claim 1,

wherein the first functionality of the control includes functionality for stopping execution of a test executive sequence;

wherein said configuring the binding between the GUI element and the control enables the control to automatically stop execution of a test executive sequence in response to the user input received to the GUI element.

14. The method of claim 1,

wherein the control comprises a standalone software component.

15. The method of claim 1,

wherein the GUI element appears on a graphical user interface of the test executive application during execution of the test executive application;

wherein the GUI element is operable to receive user input to the graphical user interface during execution of the test executive application.

16. The method of claim 15,

wherein the control does not appear on the graphical user interface of the test executive application during execution of the test executive application.

17. The method of claim 1,

wherein the control is a pre-existing control provided by an application development environment used to create the test executive application.

18. The method of claim 17, further comprising:

installing the application development environment on a computer system, wherein said installing the application development environment on the computer system comprises installing the control on the computer system.

19. The method of claim 17, further comprising:

installing the application development environment on a computer system;

installing the control on the computer system after said installing the application development environment on the computer system;

wherein said installing the control on the computer system enables the application development environment to provide a user with access to the control.

20. The method of claim 1, further comprising:

displaying a graphical user interface of an application development environment;

wherein the graphical user interface of the application development environment provides access to the GUI element and the control;

wherein said including the GUI element in the test executive application in response to user input comprises including the GUI element in the test executive application in response to user input to the graphical user interface of the application development environment;

wherein said including the control in the test executive application in response to user input comprises including the control in the test executive application in response to user input to the graphical user interface of the application development environment.

21.   The method of claim 1,

wherein the GUI element comprises a first GUI element;

wherein the method further comprises:

including a second GUI element in the test executive application in response to user input; and

configuring a binding between the second GUI element and the control;

wherein the second GUI element is operable to display information during execution of the test executive application;

wherein said control performing the first functionality in response to the user input received to the first GUI element includes the control causing the second GUI element to display information based on the user input received to the first GUI element.

22.   The method of claim 1,

wherein said configuring the binding between the GUI element and the control comprises performing one or more calls to bind the GUI element to the control during execution of the test executive application.

23.   The method of claim 1,

wherein said configuring the binding between the GUI element and the control is performed in response to receiving user input to a graphical user interface to specify the binding between the GUI element and the control.

24. The method of claim 1, further comprising:

executing the test executive application;

receiving user input to the GUI element during execution of the test executive application; and

the control performing the first functionality in response to said receiving user input to the GUI element.

25. The method of claim 1,

wherein said including the GUI element in the test executive application comprises enabling the test executive application to utilize the GUI element during execution of the test executive application;

wherein said including the control in the test executive application comprises enabling the test executive application to utilize the control during execution of the test executive application.

26. The method of claim 1,

wherein said including the GUI element in the test executive application in response to user input comprises displaying the GUI element on a graphical user interface of the test executive application in response to user input.

27. The method of claim 1, further comprising:

configuring one or more properties of the control in response to user input.

28. The method of claim 27, further comprising program instructions operable to:

displaying a property panel for configuring the control; and

receiving user input to the property panel to configure the one or more properties of the control.

29. The method of claim 1,

wherein the control is a first control;

wherein the method further comprises including a second control in the test executive application in response to user input, wherein the second control includes pre-existing second functionality;

5   wherein said first control performing the first functionality includes the first control invoking the second control to perform the second functionality.

30.   The method of claim 1,

wherein the GUI element comprises one or more of:

10   a button;

a text input element;

a check box;

a selection ring.

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31.   A computer-implemented method for creating a test executive application to perform a test executive function, the method comprising:

including a GUI element in the test executive application in response to user input, wherein the GUI element is operable to display information;

20   including a control in the test executive application in response to user input, wherein the control includes pre-existing first functionality, wherein the first functionality includes functionality for generating first information; and

configuring a binding between the GUI element and the control;

wherein said configuring the binding between the GUI element and the control

25   enables the GUI element to automatically display the first information when the control performs the first functionality during execution of the test executive application.

32.   The method of claim 31,

wherein said including the control in the test executive application enables a user

30   to configure the test executive application to perform the first functionality without

requiring the user to program the test executive application to perform the first functionality;

wherein said configuring the binding between the GUI element and the control enables the user to configure the test executive application to display the first information without requiring the user to program the test executive application to display the first information.

33.   The method of claim 31,

wherein said including the control in the test executive application enables a user to configure the test executive application to perform the first functionality without requiring the user to create program code to implement the first functionality;

wherein said configuring the binding between the GUI element and the control enables the user to configure the test executive application to display the first information without requiring the user to create program code for displaying the first information.

34.   The method of claim 31,

wherein the first functionality of the control includes test executive functionality;

wherein said configuring the binding between the GUI element and the control enables the GUI element to automatically display the first information when the control performs the test executive functionality during execution of the test executive application.

35.   The method of claim 34,

wherein the test executive functionality comprises functionality for managing execution of a test executive sequence;

wherein the first information includes information regarding execution of the test executive sequence;

wherein said configuring the binding between the GUI element and the control enables the GUI element to automatically display the information regarding execution of the test executive sequence when the control performs the test executive functionality during execution of the test executive application.

36.   The method of claim 31,

wherein the test executive application is operable to execute a test executive sequence to perform one or more tests on one or more units under test (UUTs).

37.   The method of claim 31,

wherein the test executive application comprises a run-time operator interface application for a test executive sequence.

38.   The method of claim 37,

wherein the test executive sequence is associated with a test executive environment;

wherein the control is operable to call the test executive environment during execution of the run-time operator interface application to generate the first information.

39.   The method of claim 31,

wherein the first functionality of the control includes functionality for selecting a test executive sequence and generating a list of steps in the test executive sequence;

wherein said configuring the binding between the GUI element and the control enables the GUI element to automatically display the list of steps in the test executive sequence when the control selects the test executive sequence during execution of the test executive application.

40.   The method of claim 31,

wherein the first functionality of the control includes functionality for generating a report regarding execution of a test executive sequence;

wherein said configuring the binding between the GUI element and the control enables the GUI element to automatically display the report during execution of the test executive application.

41.   The method of claim 31,

wherein the first functionality of the control includes functionality for generating execution results of a test executive sequence;

wherein said configuring the binding between the GUI element and the control enables the GUI element to automatically display the execution results during execution

5 of the test executive application.

42. The method of claim 31,

wherein the first functionality of the control includes functionality for generating information indicating an execution hierarchy for a test executive sequence;

10 wherein said configuring the binding between the GUI element and the control enables the GUI element to automatically display the execution hierarchy during execution of the test executive application.

43. The method of claim 31,

15 wherein the control comprises a standalone software component.

44. The method of claim 31,

wherein the GUI element appears on a graphical user interface of the test executive application during execution of the test executive application;

20 wherein the GUI element is operable to display information on the graphical user interface during execution of the test executive application.

45. The method of claim 44,

wherein the control does not appear on the graphical user interface of the test

25 executive application during execution of the test executive application.

46. The method of claim 31,

wherein the control is a pre-existing control provided by an application development environment used to create the test executive application.

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47. The method of claim 46, further comprising:

installing the application development environment on a computer system, wherein said installing the application development environment on the computer system comprises installing the control on the computer system.

48.   The method of claim 46, further comprising:

installing the application development environment on a computer system;

installing the control on the computer system after said installing the application development environment on the computer system;

wherein said installing the control on the computer system enables the application development environment to provide a user with access to the control.

49.   The method of claim 31,

wherein the GUI element comprises a first GUI element;

wherein the method further comprises:

including a second GUI element in the test executive application in response to user input; and

configuring a binding between the second GUI element and the control;

wherein the second GUI element is operable to receive user input during execution of the test executive application;

wherein said configuring the binding between the second GUI element and the control enables the control to automatically perform the first functionality in response to the user input received to the second GUI element, wherein said performing the first functionality includes generating the first information;

wherein said configuring the binding between the first GUI element and the control enables the first GUI element to automatically display the first information in response to the user input received to the second GUI element.

50.   The method of claim 31,

wherein said configuring the binding between the GUI element and the control comprises performing one or more calls to bind the GUI element to the control during execution of the test executive application.

51.   The method of claim 31,

wherein said configuring the binding between the GUI element and the control is performed in response to receiving user input to a graphical user interface to specify the binding between the GUI element and the control.

52.   The method of claim 31, further comprising:

executing the test executive application;

the control performing the first functionality during execution of the test executive application, wherein said control performing the first functionality comprises the control generating the first information; and

the GUI element displaying the first information generated when the control performs the first functionality.

53.   A computer-implemented method for creating a test executive application   ᵁᵏ
to perform a test executive function, the method comprising:

including a first GUI element in the test executive application, wherein the first GUI element is operable to receive user input during execution of the test executive application;

including a second GUI element in the test executive application, wherein the second GUI element is operable to display information during execution of the test executive application;

including a control in the test executive application, wherein the control includes pre-existing first functionality, wherein the first functionality includes functionality for generating first information;

configuring a binding between the first GUI element and the control;

configuring a binding between the second GUI element and the control;

wherein said configuring the binding between the first GUI element and the control enables the control to automatically perform the first functionality in response to the user input received to the first GUI element during execution of the test executive

application, wherein said performing the first functionality includes generating the first information;

wherein said configuring the binding between the second GUI element and the control enables the second GUI element to automatically display the first information when the control performs the first functionality in response to the user input received to the first GUI element.

54.   A computer-implemented method for creating a test executive application to perform a test executive function, the method comprising:

including a GUI element in the test executive application;

including a control in the test executive application; and

configuring a binding between the GUI element and the control;

wherein the GUI element is operable to receive user input during execution of the test executive application;

wherein said configuring the binding between the GUI element and the control enables the control to automatically respond to the user input received to the GUI element.

55.   The method of claim 54,

wherein the GUI element is a first GUI element;

wherein the method further comprises:

including a second GUI element in the test executive application; and

configuring a binding between the second GUI element and the control;

wherein the second GUI element is operable to display information for the test executive application;

wherein said control responding to the user input received to the first GUI element includes the control causing the second GUI element to display information based on the user input received to the first GUI element.

56.   A computer-implemented method for creating a software measurement application to perform a measurement function, the method comprising:

including a GUI element in the measurement application in response to user input;

including a control in the measurement application in response to user input, wherein the control includes pre-existing first functionality; and

configuring a binding between the GUI element and the control;

wherein the GUI element is operable to receive user input during execution of the measurement application;

wherein said configuring the binding between the GUI element and the control enables the control to automatically perform the first functionality in response to the user input received to the GUI element.

57.   The method of claim 56,

wherein said configuring the binding between the GUI element and the control enables a user to configure the measurement application to perform the first functionality in response to user input received to the GUI element without requiring the user to program the measurement application to perform the first functionality.

58.   The method of claim 56,

wherein said configuring the binding between the GUI element and the control enables a user to configure the measurement application to perform the first functionality in response to user input received to the GUI element without requiring the user to program the measurement application to respond to user input received to the GUI element.

59.   The method of claim 56,

wherein said configuring the binding between the GUI element and the control enables a user to configure the measurement application to perform the first functionality in response to user input received to the GUI element without requiring the user to create program code to implement the first functionality.

60.   The method of claim 56,

wherein the first functionality of the control includes measurement functionality;

wherein said configuring the binding between the GUI element and the control enables the control to automatically perform the measurement functionality in response to the user input received to the GUI element.

61.   The method of claim 56,

wherein the control is a pre-existing control provided by an application development environment used to create the measurement application.

62.   The method of claim 56,

wherein the GUI element comprises a first GUI element;

wherein the method further comprises:

including a second GUI element in the measurement application in response to user input; and

configuring a binding between the second GUI element and the control;

wherein the second GUI element is operable to display information during execution of the measurement application;

wherein said control performing the first functionality in response to the user input received to the first GUI element includes the control causing the second GUI element to display information based on the user input received to the first GUI element.

63.   A computer-implemented method for creating a software measurement application to perform a measurement function, the method comprising:

including a GUI element in the measurement application in response to user input, wherein the GUI element is operable to display information;

including a control in the measurement application in response to user input, wherein the control includes pre-existing first functionality, wherein the first functionality includes functionality for generating first information; and

configuring a binding between the GUI element and the control;

wherein said configuring the binding between the GUI element and the control enables the GUI element to automatically display the first information when the control performs the first functionality during execution of the measurement application.

5   64.   The method of claim 63,

wherein said including the control in the measurement application enables a user to configure the measurement application to perform the first functionality without requiring the user to program the measurement application to perform the first functionality;

10   wherein said configuring the binding between the GUI element and the control enables the user to configure the measurement application to display the first information without requiring the user to program the measurement application to display the first information.

15   65.   The method of claim 63,

wherein said including the control in the measurement application enables a user to configure the measurement application to perform the first functionality without requiring the user to create program code to implement the first functionality;

wherein said configuring the binding between the GUI element and the control

20   enables the user to configure the measurement application to display the first information without requiring the user to create program code for displaying the first information.

66.   The method of claim 63,

wherein the first functionality of the control includes measurement functionality;

25   wherein said configuring the binding between the GUI element and the control enables the GUI element to automatically display the first information when the control performs the measurement functionality during execution of the measurement application.

30   67.   The method of claim 63,

wherein the control is a pre-existing control provided by an application development environment used to create the measurement application.

68.   The method of claim 63,

5   wherein the GUI element is a first GUI element;

wherein the method further comprises:

including a second GUI element in the measurement application in response to user input; and

configuring a binding between the second GUI element and the control;

10   wherein the second GUI element is operable to receive user input during execution of the measurement application;

wherein said configuring the binding between the second GUI element and the control enables the control to automatically perform the first functionality in response to the user input received to the second GUI element, wherein said performing the first

15   functionality includes generating the first information;

wherein said configuring the binding between the first GUI element and the control enables the first GUI element to automatically display the first information in response to the user input received to the second GUI element.

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69.   A computer-implemented method for creating a measurement application   ⟨   to perform a measurement function, the method comprising:

including a first GUI element in the measurement application, wherein the first GUI element is operable to receive user input during execution of the measurement

25   application;

including a second GUI element in the measurement application, wherein the second GUI element is operable to display information during execution of the measurement application;

including a control in the measurement application, wherein the control includes

30   pre-existing first functionality, wherein the first functionality includes functionality for generating first information;

configuring a binding between the first GUI element and the control;

configuring a binding between the second GUI element and the control;

wherein said configuring the binding between the first GUI element and the control enables the control to automatically perform the first functionality in response to

5   the user input received to the first GUI element during execution of the measurement application, wherein said performing the first functionality includes generating the first information;

wherein said configuring the binding between the second GUI element and the control enables the second GUI element to automatically display the first information

10   when the control performs the first functionality in response to the user input received to the first GUI element.

70.   A computer-implemented method for creating a software application, the

15   method comprising:

including a GUI element in the application in response to user input;

including a control in the application in response to user input, wherein the control includes pre-existing first functionality; and

configuring a binding between the GUI element and the control;

20   wherein the GUI element is operable to receive user input during execution of the application;

wherein said configuring the binding between the GUI element and the control enables the control to automatically perform the first functionality in response to the user input received to the GUI element.

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71.   The method of claim 70,

wherein said configuring the binding between the GUI element and the control enables a user to configure the application to perform the first functionality in response to user input received to the GUI element without requiring the user to program the

30   application to perform the first functionality.

72.   A computer-implemented method for creating a software application, the   \ᵉ
method comprising:

including a GUI element in the application in response to user input, wherein the
5   GUI element is operable to display information;

including a control in the application in response to user input, wherein the
control includes pre-existing first functionality, wherein the first functionality includes
functionality for generating first information; and

configuring a binding between the GUI element and the control;
10   wherein said configuring the binding between the GUI element and the control
enables the GUI element to automatically display the first information when the control
performs the first functionality during execution of the application.

73.   The method of claim 72,
15   wherein said including the control in the application enables a user to configure
the application to perform the first functionality without requiring the user to program the
application to perform the first functionality;

wherein said configuring the binding between the GUI element and the control
enables the user to configure the application to display the first information without
20   requiring the user to program the application to display the first information.

74.   A computer-implemented method for creating a software application, the
method comprising: \ᷤ
25   including a first GUI element in the application, wherein the first GUI element is
operable to receive user input during execution of the application;

including a second GUI element in the application, wherein the second GUI
element is operable to display information during execution of the application;

including a control in the application, wherein the control includes pre-existing
30   first functionality, wherein the first functionality includes functionality for generating
first information;

configuring a binding between the first GUI element and the control;

configuring a binding between the second GUI element and the control;

wherein said configuring the binding between the first GUI element and the control enables the control to automatically perform the first functionality in response to

5   the user input received to the first GUI element during execution of the application, wherein said performing the first functionality includes generating the first information;

wherein said configuring the binding between the second GUI element and the control enables the second GUI element to automatically display the first information when the control performs the first functionality in response to the user input received to

10   the first GUI element.

75.   A computer-implemented method for creating a simulation application to perform a simulation function, the method comprising:

including a GUI element in the simulation application in response to user input;

15   including a control in the simulation application in response to user input, wherein the control includes pre-existing simulation functionality; and

configuring a binding between the GUI element and the control;

wherein the GUI element is operable to receive user input during execution of the simulation application;

20   wherein said configuring the binding between the GUI element and the control enables the control to automatically perform the simulation functionality in response to the user input received to the GUI element.